and non-survival groups, and the time interval between the two groups was analyzed. A cut-off time interval was then used to subdivide our patients into early and delayed intervention groups. All parameters were compared between the two groups.
Results: Based on simplified FGSI, the mortality rate was 0% in score 0, 5.88% in score 1, 6.25% in score 2, 30.77% in score 3, 28.57% in score 4, 40% in score 5, 60% in score 6, 100% in score >7. Thirty patients with score between 3 and 6 were further investigated. The mean time interval between ER and OR in survivors (917.11 ± 1008.68 mins) was significant lower than non-survivors (1379.55 ± 903.9 mins) ($P = 0.00$). Then we defined 15 hours as cut-off time interval and those 30 patients were subdivided into early (n = 17) and delayed (n = 13) groups. Basic characteristics, laboratory parameter at initial diagnosis, FGSI and simplified FGSI were not significantly different between these two groups. The mortality rate was significantly lower in early intervention group (17.65%) compared to delayed group (61.54%) ($P = 0.034$).
Conclusion: Early surgical intervention within 15 hours can decrease mortality rate up to 44% in selected patients of Fournier's gangrene who had relatively intermediate risk of mortality.

PD11-2:
LESSONS LEARNED FROM 40 URETHROPLASTIES FOR URETHRAL STRICTURES

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Purpose: To report our 8-year experience with open urethroplasty for treatment of urethral strictures.
Materials and Methods: From 2007 through 2015, 40 patients (mean age 36.6 years) underwent open urethroplasty for urethral reconstruction. Twenty-seven patients had posterior urethral stricture and 13 had anterior urethral stricture. Preoperative evaluation of the urethral stricture included a simultaneous retrograde urethrogram and/or cystogram. The mean estimated preoperative real length of the urethral disruption or obliteration was 2.69 ± 0.97 cm (rang 1.5 to 5.5 cm). Excision and primary anastomosis (EPA) for 4 anterior urethral strictures and buccal mucosa graft augmented urethroplasty for 9 anterior urethral strictures were performed. Transperineal bulbo-membranous anastomosis was performed for 27 posterior urethral strictures.
Results: The results were successful in 23 (85%) cases of posterior urethral stricture and 13 (100%) cases of anterior urethral stricture. Postoperative evaluation included voiding cystourethrography, urethroscopy, and uroflow study. Voiding cystourethrography performed postoperatively demonstrated a wide, patent anastomosis in all but three cases. The mean peak flow rate at the last follow-up visit was 18.1 ± 6.5 ml/s. Four patients developed recurrent urethral strictures. The negative results were related to incomplete excision of fibrotic posterior urethra in 2 cases, an anastomotic tension due to long distraction defect in 2 cases.
Conclusion: From our limited experience, buccal mucosa graft augmented urethroplasty and EPA are reliable methods in management of anterior urethral stricture. The essential operative techniques of posterior urethroplasty included complete excision of scar tissue involving the membranous urethral region, and creation of tension free mucosa to mucosa repair.

Pediatrics

PD11-3:
ROUTINE UROFLOWMETRY AND POST-VOID RESIDUAL URINE IN PRIMARY NOCTURNAL ENURESIS

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Purpose: To examine the results of routine uroflowmetry and postvoid residual urine (PVR) in children with primary nocturnal enuresis (PNE).
Materials and Methods: Children with PNE underwent two sets of uroflowmetry and PVR by transabdominal ultrasound. Uroflowmetry pattern were reported as ICCS classification. Elevated PVR is defined as >20 ml in children aged 4–6 years, and >10 ml in children aged 7–12 years, respectively.
Results: Totally, 82 children with a mean age of aa ± bb years were enrolled for study. Boy to girl ratio was cc: dd. Of the first 82 uroflowmetry curves 52 (63.4%) and 30 (36.6%) were bell and non-bell shaped, respectively. Of the 30 non-bell shaped curves 6 (25.0%) were normal at repeat uroflowmetry test. Finally, repeat staccato curves were observed in 12 chidren, tower in 8, plateau in 2, intermittent in 1, and obstructive in 1.
Mean value of first PVR was aa ± bb ml. First PVR was elevated in 27 (32.9%) children of whom second PVR was normal in 21 (77.8%) children. Of the 6 children with repeated elevated PVR 4 had bell-shaped uroflowmetry curves and 2 had non-bell shaped curves. Finally, Repeat abnormal uroflowmetry curves and/or repeat elevated PVR were noted in 27 (32.9%) children. Repeat uroflowmetry and PVR tests may avoid 25% and 77.8% unnecessary invasive urodynamic tests, respectively.
Conclusion: Routine uroflowmetry and postvoid residual urine examinations are recommended in children with primary nocturnal enuresis because potential lower urinary tract dysfunction was observed in one third of children with PNE. Repeat uroflowmetry and PVR tests are recommended to avoid unnecessary invasive urodynamic tests.

PD11-4:
EXPERIENCE OF MINI-LAPAROSCOPIC PYELOPLASTY IN INFANT AND CHILDREN SINGLE INSTITUTION EXPERIENCE

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Purpose: We investigate the feasibility and the result of mini-laparoscopic pyeloplasty in our hospital since 2005.
Materials and Methods: A total 7 patients aged from 43 days to 17 years old were enrolled in our retrospective review. The persisting symptoms (pain, stone, infection) and obvious deteriorated renal function were the indication for surgical intervention. The etiology, surgical finding, surgical method, operation time, number and size of troca, complication, admission days were all enrolled in our retrospective study.
Results: The average age of patients was 6.0 ± 5.3 year-old with average following up period 51.9 ± 35.6 years. The hospital days were 6.1 ± 1.8 days. The average operation time was 292.9 ± 56.3 minutes with minimal blood loss (all < 50 ml). There was only one complication recorded (Post operative urosepsis, with pre-operation finding of pyuria). The complication rate was 14.3% (1 in 7 patients). The post operation following up revealed no hydronephrosis nor obstructive finding in the DTPA scan.
Conclusion: The Mini-laparoscopic surgery brings excellent surgical result and is not inferior to the golden standard open surgery in our hospital experience in cosmetic and surgical result.

PD11-5:
STANDARD UROTHERAPY WAS EFFECTIVE IN CHILDREN WITH PRIMARY NOCTURNAL ENURESIS AND LARGE MAXIMAL VOIDED VOLUME

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Purpose: A recent randomized control failed to show the benefits of standard urotherapy in children with primary nocturnal enuresis (PNE). Herein, we correlated the results of urotherapy and maximal voided volume (MVV) in children with PNE.
Materials and Methods: Children with PNE recorded frequency volume chart (FVC) for 48 hours, and underwent two sets of uroflowmetry and postvoid residual urine (PVR). Number of wet nights was recorded before and after urotherapy for at least 7 days. Standard urotherapy for 4 weeks and treatment outcomes were in accordance with the recommendation of ICCS.

Results: Based on FVC, 12 children were classified as Group A (MVV >100% EBC), 24 Group B (MVV between 60–100% EBC), and 11 Group C (MVV <60% EBC). Between groups, there was no statistical difference in age. Mean and median MVV were statistically higher in Group A (416.7, 400ml) than group B (225.2, 245ml), and group C (146.3, 158). Mean and median MVV of group A were 154% and 136 % EBC, those of group B were 81% and 77% EBC, and those of group C were 50% and 53% EBC, respectively. Treatment responses (complete + partial) were statistically higher in group A than group B and C ($p = 0.02$).
Conclusion: Standard urotherapy was more effective in children with a maximal voided volume >100% expected bladder capacity. Larger and prospective studies are required to prove the concept of urotherapy in this specific group of patients.

PD11-6:
RETROSPECTIVE REVIEW OF TESTICULAR TORSION – TEN YEARS EXPERIENCE IN CATHAY GENERAL HOSPITAL

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Purpose: Testicular torsion is an emergency in Urology. It is also one of the leading causes of medicolegal problem. We would like to review retrospectively our cases in the past ten years in order to remind and make an alert in the future in the diagnosis and treatment of testicular torsion.
Materials and Methods: From 2005 to 2015, total 14 patients were diagnosed testicular torsion in the past ten years. The range of age is from 6 years old to 23 years old, mainly teenagers. All patients received exploration after diagnosis.
Results: In our series, total seven patients received orchiopexy. Unfortunately, total seven patients received orchiectomy. Delay in diagnosis is the main reason of leading to orchiectomy. We would like to investigate how to approach correct diagnosis and the time period from diagnosis to operation. At the same time, we would like to discuss the patients' and the families' factors.
Conclusion: Early diagnosis and prompt surgical correction are the key to treat testicular torsion successfully. Public education is most important. The first line doctors should also be keen on eye to avoid patients' suffering.

Podium-12
LUTS

PD12-1:
COMPARISON OF NOCTURIA RESPONSE TO DESMOPRESSIN TREATMENT IN ELDERLY MEN WITH AND WITHOUT NOCTURNAL POLYURIA IN REAL LIFE PRACTICE

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Purpose: To evaluate the safety and efficacy of low dose desmopressin in elderly men with and without nocturnal polyuria (NP) in real life practice.
Materials and Methods: Patients with lower urinary tract symptoms (LUTS)/ benign prostate hyperplasia (BPH) who were≧65years old with refractory nocturia were enrolled in this study. We retrospectively analyzed elderly men treated with adding desmopressin to current medications for nocturia according to category of the baseline nocturnal urine volume. The 48 frequency volume chart (FVC), International Prostate Symptom Score (IPSS) and quality of life (QoL) were initially assessed and re-evaluated 12 weeks later. Serum sodium level was checked 1 week, 4 weeks, and 12 weeks after initiation of desmopressin therapy or suspected hyponatremia event. The mean change in numbers of nocturnal voids was evaluated for efficacy of treatment.
Results: A total of 136 patients were included with 55 in non-NP group and 81 in NP group. Hypertension was more common in NP group in regard of co-morbidities. During treatment period, there were significant reductions of nocturnal voids from 4.22 ± 1.38 to 2.31 ± 0.98 ($p < 0.001$) in non-NP group and from 4.52 ± 1.23 to 2.07 ± 0.89 ($p < 0.001$) in NP group. The reduction in nocturnal voids was more significant in NP group (2.44 ± 1.15 vs 1.91 ± 1.48 $p = 0.003$). The mean decrease in serum sodium levels were 3.89 ± 1.22 mmol/L ($p < 0.001$) in non-NP group and 4.69 ± 3.5 mmol/L ($p < 0.001$) in NP group at the extreme value.
Conclusion: Long-term treatment with low-dose desmopressin is safe and effective for nocturia with or without NP in elderly patients with LUTS/BPH during real life practice. Patients should be well informed about the disease and are closely followed.

PD12-2:
CHARACTERISTICS OF MALE PATIENTS WITH HIGH FLOW BLADDER OUTLET OBSTRUCTION

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Purpose: Bladder outlet obstruction (BOO) is a major cause of lower urinary tract symptoms (LUTS) in males. Symptomatic slow urinary stream associating with a low uroflow rate as shown in the uroflowmetry is the typical clinical finding for patients with BOO. Nevertheless, some patients with BOO have good uroflow rate. We are interested in the differences of characteristics between those BOO patient with high flow rate and low flow rate.
Materials and Methods: We retrospectively recruited male patients who received urodynamic pressure-flow study and were identified having BOO, which was defined as bladder outlet obstruction index (BOOI) >40. BOO patients were categorized into high and low flow rate with the cut-off value of 15ml/sec maximal flow rate (Qmax) in free uroflowmetry. All patients received transabdominal ultrasonography to determine prostate size, intra-vesical prostatic protrusion (IPP) and detrusor wall thickness (DWT). International Prostate Symptom Score (IPSS) and Overactive Bladder Symptom Score (OABSS) were used for symptom evaluation.
Results: 205 male patients with BOO were enrolled in this study. Of them 36 patients (17.6%) were diagnosed as high flow BOO. Patients with high flow BOO were younger than those with low flow BOO (mean age 64.6 vs 72.9 years old, $p = 0.02$). The mean PSA level of high flow group was not different from that of low flow group (3.0 ± 2.4 vs 3.6 ± 2.8, $p = 0.45$). Prostatic size were 48.7 ± 20.2ml and 53.0 ± 21.2ml, respectively ($p = 0.44$). Intra-vesical prostatic protrusion (IPP) were 0.7 ± 0.4 and 0.9 ± 0.4cm, respectively ($p = 0.19$). Detrusor wall thickness (DWT) showed 0.3 ± 0.1 and 0.3 ± 0.1cm, respectively ($p = 0.79$). Patients with low flow BOO had higher total IPSS score, voiding-subscore and storage subscore. Low flow BOO patients also had more urinary frequency as evaluated with OABSS.
Conclusion: Male patients with high flow BOO tend to be younger, to have larger bladder capacities and to have less severe storage and voiding symptoms than those with low flow BOO. However, PSA level, prostatic size, intravesical prostatic protrusion, detrusor wall thickness, detrusor pressure at maximum flow rate and post-void residual urine did not show significant difference between two groups.

PD12-3:
SINGLE INSTITUTION EXPERIENCE OF OVER 100 CASES OF AUGMENTATION ENTEROCYSTOPLASTY IN THE PATIENTS WITH END-STAGE BLADDER DISEASES

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Purpose: The patients with irreversible contracted bladder or lower compliance due to different disease might be clinically categorized to end stage bladder diseases (ESBD). Conventionally, augmentation enterocystoplasty (AE) is indicated in ESBD patients and could effectively improve clinical symptoms. However, the outcome and complication between different etiologies had not been reported and compared. We